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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/985,999

Applicant(s)

AMANO, KOJI

Examiner

THANH T. VU

Art Unit

2174

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 9, 10, 12-14, 16, 17, 21-24, 29-36, 41-43 and 45-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9, 10, 12-14, 16-17, 21-24, 29-36, 41-43, 45-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2007 has been entered.

This communication is responsive to Amendment, filed 10/25/2007.

Claims 1-5, 7, 9, 10, 12-14, 16-17, 21-24, 29-36, 41-43, 45-51 are pending in this application. In the Amendment, claims 1-5, 7, 9-10, 12-14, 16-17, 21-24, 29-36, 41-43, 45-51 were amended and claim 6, 8, 11, 15, 18-20, 25-28, 37-40, 44 and 52 were canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9, 10, 12, 13, 14, 17, 31, 35, 43, 48, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023) in view of Arcuri et al. (U.S. Pat. No. 6,121,968), and Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667).

Per claim 1, Nomura teaches an image forming apparatus comprising:

a display that displays an image indicating a function and allows a user to instruct the image forming apparatus to perform the function by selecting the image (see, fig. 6-10), but does not specifically teach a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement, wherein a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the arrangement so that at least one image displayed in a position which is different in the first case than in the second case.

However, Hattori teaches teach a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement (col. 3, lines 17-24; col. 4, lines 25-40). Arcuri teaches a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the arrangement so that at least one image displayed in a position which is different in the first case than in the second case (figs. 2a-2d; col. 2, lines 10-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Hattori and Arcuri in the invention of Nomura in order to provide an image processing device that can

process image information and additionally perform fax communication operation, and in order to provide a method for dynamically changing available selectable options in a given short menu based upon the particular needs and utilization behavior of the user.

Per claim 4, Nomura teaches an image forming apparatus comprising:

a display that displays an image indicating a function and allows a user to instruct the image forming apparatus to perform the function by selecting the image (see, fig. 6-10), but does not specifically teach a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement, wherein a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the arrangement so that images are displayed in the second case than in the first case.

However, Hattori teaches a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement (col. 3, lines 17-24; col. 4, lines 25-40). Arcuri teaches a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case (figs. 2a-2d; col. 2, lines 10-22), and the display arrangement control device determines the arrangement so that at least one image displayed in a position which is different in the first case than in the second case (col. 3, line 15-30 *which shows items displayed*

in short menu have larger usage count interval). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Hattori and Arcuri in the invention of Nomura in order to provide an image processing device that can process image information and additionally perform fax communication operation, and in order to provide a method for dynamically changing available selectable options in a given short menu based upon the particular needs and utilization behavior of the user.

Per claim 9, the modified Nomura teaches the image forming apparatus according to claim 1, wherein the display further comprises a touch panel display device which allows a user to instruct by touching a display area thereof (Nomura, col. 7, lines 35-40)

Per claim 10, the modified Nomura teaches the image forming apparatus claim 1, wherein the display arrangement control device controls the arrangement of image to be displayed, when a number of the images to be displayed is changed, so that images to be newly displayed are displayed in a uniform arrangement (Arcuri, figs. 2A-2D).

Per claim 12, Arcuri teaches a calculating device for determining by calculation display positions of images when a number of the images to be displayed is changed (figs. 2A-2D; col. 3, lines 1-30).

Per claim 13, Arcuri teaches the images indicate options associated with a function, and the options associated with the function are displayed by selecting an image indicating the function (fig. 2A-2D; each menu item is associated with a particular function).

Claim 14 is rejected under the same rationale as claim 1.

Claim 17 is rejected under the same rationale as claim 10.

Claim 31 is rejected under the same rationale as claim 9.

Claim 35 is rejected under the same rationale as claim 10.

Claim 43 is rejected under the same rationale as claim 12.

Claim 48 is rejected under the same rationale as claim 13.

Per claim 50, Arcuri teaches the display device according to claim 1, wherein a size of a range in which the plurality of user-selectable image forming functions options are displayed is the same in the first case and the second case (figs. 2A and 2B; Menu options are the same size).

Claim 51 is rejected under the same rationale as claim 50.

Claims 2, 5, 25, 29, 32, 33, 36, 41, 45, 46, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023), Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667), Arcuri et al. (U.S. Pat. No. 6,121,968) and Kino et al. ("Kino", US 6,469,719).

Per claim 2, Nomura teaches an image forming apparatus comprising:

a display that displays an image indicating a function and allows a user to instruct the image forming apparatus to perform the function by selecting the image (see, fig. 6-10), but does not specifically teach a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement, wherein a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the

arrangement so that at least one image is displayed in a size which is different in the first case than in the second case.

However, Hattori teaches a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement (col. 3, lines 17-24; col. 4, lines 25-40). Arcuri teaches a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, (figs. 2a-2d; col. 2, lines 10-22). Kino teaches a display device with improved layout images wherein the display size of the images are adjusted or reduced (FIG. 1, col.2, lines 46-65, *layout unit, size reducing unit*). It would have been obvious to an artisan at the time of the invention to combine the teachings of Hattori, Arcuri, and Kino in the invention of Nomura in order to provide an image processing device that can process image information and additionally perform fax communication operation, in order to provide a method for dynamically changing available selectable options in a given short menu based upon the particular needs and utilization behavior of the user, and in order to accommodate the fluctuation in the number of menu items without requiring the definition of a plurality of GUI screens with different layouts of menu options (col.2, lines 25- 32).

Per claim 5, Nomura teaches an image forming apparatus comprising:

a display that displays an image indicating a function and allows a user to instruct the image forming apparatus to perform the function by selecting the image (see, fig. 6-10), but does not specifically teach a display arrangement control device that judges functions provided to the

image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement, wherein a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the arrangement so that at least one image is displayed in a size which is different in the first case than in the second case.

However, Hattori teaches a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement (col. 3, lines 17-24; col. 4, lines 25-40). Arcuri teaches a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, (figs. 2a-2d; col. 2, lines 10-22). Kino teaches the display arrangement control device determines the arrangement so that images are displayed in a larger size in the second case than in the first case (*a display device with improved layout of options wherein the display size of at least one of the options are adjusted or reduced* (see, FIG. 1, col.2, lines 46-65, *layout unit, size reducing unit*). It would have been obvious to an artisan at the time of the invention to combine the teachings of Hattori, Arcuri and Kino with the display device of Nomura in order to provide an image processing device that can process image information and additionally perform fax communication operation, in order to provide a method for dynamically changing available selectable options in a given short menu based upon the particular needs and

utilization behavior of the user, and in order to display options large enough for the user to discern without making them overly difficult to read (col. 3, lines 5- 23).

Per claim 29, the modified Nomura teaches the image forming apparatus according to claim 2, wherein the display further comprises a touch panel displayed device which allows a user to instruct by touching a display area thereof (Nomura, col. 7, lines 35-45)

Claim 32 is rejected under the same rationale as claim 29.

Claim 33 is rejected under the same rationale as claim 10.

Claim 36 is rejected under the same rationale as claim 10.

Claim 41 is rejected under the same rationale as claim 12.

Claim 45 is rejected under the same rationale as claim 12.

Claim 46 is rejected under the same rationale as claim 13.

Claim 49 is rejected under the same rationale as claim 13.

Claims 3, 30, 34, 42, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023), Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667), Arcuri et al. (U.S. Pat. No. 6,121,968) and Hocker et al. ("Hocker", US' 5,754,179)

Per claim 3, Nomura teaches an image forming apparatus comprising:

a display that displays an image indicating a function and allows a user to instruct the image forming apparatus to perform the function by selecting the image (see, fig. 6-10), but does not specifically teach a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement, wherein a plurality

of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case, and the display arrangement control device determines the arrangement so that at least one image displayed in a position which is different in the first case than in the second case.

However, Hattori teaches a display arrangement control device that judges functions provided to the image forming apparatus that determines an arrangement of images to be displayed each of the images to be displayed indicating a function provided to the image forming apparatus, and that displays the images on the display according to the determined arrangement (col. 3, lines 17-24; col. 4, lines 25-40). Arcuri teaches a plurality of images are displayed in a first case less than all of the plurality of images displayed in the first case are displayed in a second case (figs. 2a-2d; col. 2, lines 10-22). Hocker teaches a method for organizing, displaying, managing, and selecting options on a graphical user interface in which the options are distinguished by one of a plurality of distinguishing features such as size and shape (col. 1, lines 58-60; col.4, lines 36-48, *distinguishing features include: size, shape*). It would have been obvious to an artisan at the time of the invention to combine the teachings of Hattori, Arcuri and Hocker with the display device of Nomura in order to provide an image processing device that can process image information and additionally perform fax communication operation, in order to provide a method for dynamically changing available selectable options in a given short menu based upon the particular needs and utilization behavior of the user, and in order to provide users with a dynamic way of defining the relationship among the many different options on a graphical user interface by selecting different shapes to represent different functions (col. 1, line 63-col.2 line 16).

Per claim 30, the modified Nomura teaches the image forming apparatus according to claim 3, wherein the display further comprises a touch panel displayed device which allows a user to instruct by touching a display area thereof (Nomura, col. 7, lines 35-45)

Claim 34 is rejected under the same rationale as claim 10.

Claim 42 is rejected under the same rationale as claim 12.

Claim 47 is rejected under the same rationale as claim 13.

Claims 7, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023), Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667), Arcuri et al. (U.S. Pat. No. 6,121,968) and Ezekiel et al. (U.S. Pat. No. 5,625,783).

Per claim 7, the modified Nomura teaches the image forming apparatus according to claim 1, but does not teach the function provided to the image forming apparatus is determined according to mounting conditions of additional devices provided to the image forming apparatus. However, Ezekiel teaches the function provided to the image forming apparatus is determined according to mounting conditions of additional devices provided to the image forming apparatus. (col. 3, lines 10-20). It would have been obvious to an artisan at the time of the invention to combine the teachings of Ezekiel with the display device of the modified Nomura in order to provide a system which can automatically and dynamically construct user interface menus "on the fly" during execution of a program.

Claim 16 is rejected under the same rationale as claim 7.

Claim 23 is rejected under the same rationale as claim 7.

Claims 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023), Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667), Arcuri et al. (U.S. Pat. No. 6,121,968), Kino et al. ("Kino", US 6,469,719), and Ezekiel et al. (U.S. Pat. No. 5,625,783).

Per claim 21, the modified Nomura teaches the image forming apparatus according to claim 2, but do not teach the function provided to the image forming apparatus is determined according to mounting conditions of additional devices provided to the image forming apparatus. However, Ezekiel teaches the function provided to the image forming apparatus is determined according to mounting conditions of additional devices provided to the image forming apparatus (col. 3, lines 10-20). It would have been obvious to an artisan at the time of the invention to combine the teachings of Ezekiel with the display device of the modified Nomura in order to provide a system which can automatically and dynamically construct user interface menus "on the fly" during execution of a program.

Claim 24 is rejected under the same rationale as claim 21.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al. ("Nomura", U.S. Pat. No. 6,308,023), Hattori et al. ("Hattori", U.S. Pat. No. 6,570,667), Arcuri et al. (U.S. Pat. No. 6,121,968), Hocker et al. ("Hocker", US' 5,754,179), and Ezekiel et al. (U.S. Pat. No. 5,625,783).

Per claim 22, the modified Nomura teaches the image forming apparatus according to claim 3, but do not teach the function provided to the image forming apparatus is determined according to mounting conditions of additional devices provided to the image forming apparatus. However, Ezekiel teaches the function provided to the image forming apparatus is determined

according to mounting conditions of additional devices provided to the image forming apparatus (col. 3, lines 10-20). It would have been obvious to an artisan at the time of the invention to combine the teachings of Ezekiel with the display device of the modified Nomura in order to provide a system which can automatically and dynamically construct user interface menus “on the fly” during execution of a program.

Response to Arguments

Applicant's arguments with respect to the amendment have been considered but are moot in view of the new ground(s) of rejection.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THANH T. VU whose telephone number is (571)272-4073. The examiner can normally be reached on Mon- Fri 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2174

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanh T. Vu/

Examiner, Art Unit 2174